

REMARKS

It is respectfully requested that this application be considered in view of the following remarks. Currently amended claims 2 – 10, 17, 19, 20, and 22; and newly added claims 33 – 63 are pending in this application. Examiner previously allowed Claims 17 - 24 and 26 - 32. Furthermore, Claims 2 – 5; 8 – 10; and 13 – 16 have been amended to overcome the rejections under 35 U.S.C. § 112, second paragraph, as set forth in Examiner's Non-Final Rejection. As amended, the claims now recite allowable subject matter and preferred embodiments of the previously allowed invention. Furthermore, the newly added claims recite additional preferred embodiments of the previously allowed invention. Accordingly, consideration and allowance of the claims is respectfully requested.

Disposition of the Claims

Examiner rejected Claims 2 – 5, 8 – 10, and 13 - 16 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

Examiner rejected Claim 25 under 35 U.S.C. 102(b) as being clearly anticipated by Little, Jr. et al, U.S. Patent No. 3,189,545, or Johnson et al, U.S. Patent No. 5,135,670.

Examiner rejected Claims 1, 7, 11 and 25 under 35 U.S.C. 103(a) as being unpatentable over Little, Jr. et al, U.S. Patent No. 3,189,545.

Examiner objected to Claim 6 as being dependent upon a rejected base claim.

Claims 17 – 24 and 26 – 32 are allowed.

Claims 1, 12 and 23 - 26 have been cancelled.

Amendments:

Claims 2 – 5, 8 – 10, and 13 - 16 of the present invention have been amended to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. Claims 2, 3 and 5 have been amended to define "BHT" as butylated hydroxy toluene. Support for this amendment is found on page 7, lines 9 - 10. Claims 2 and 4 have been amended to define the type of "R" group in the general hindered phenol formula. Support for this amendment is found on page 7, lines 1 - 8.

Claims 33 - 58 have been added and are new.

Claims 33 - 37 are directed to the antioxidant systems of Claims 2 – 6 wherein the concentration ratio of sulfurized isobutylene to hindered phenols is 0.004 to 1.13. Support for the addition of the concentration ratio limitation is found on page 5, line 9.

Claims 38 - 42 are directed to the antioxidant systems of Claims 2 – 6 wherein said system is a natural gas engine oil antioxidant system. Support for the addition of the natural gas engine oil limitation is found on page 4, lines 7 – 8.

Claim 43 is directed to a lubricating oil comprising a base oil and the antioxidant of Claim 6. Support for the addition of the base oil limitation is found on page 3, lines 13 - 14.

Claims 44 and 46 are directed to a lubricating oil comprising dispersant, detergent, wear inhibitor, sulfurized isobutylene, and hindered phenol. Support

for new claims 44 and 46 is found on page 6, lines 26 – 27; page 7, lines 10 – 12; page 10, lines 2 – 4; and page 15, lines 26 – 32.

Claims 45 and 47 are directed to a method of lubricating engines using the lubricating oil of Claims 44 and 46. Support for new Claims 45 and 47 is found on page 17, lines 17 – 19.

Claims 48 – 50, 52, 54, 56 and 58 are directed to the method of lubricating engines of Claims 11, 13, 14, 18, 21, 29 and 32 wherein said engine is a natural gas fueled engine. Support for the addition of the natural gas fueled engine limitation is found on page 17, line 23 – 25.

Claims 51, 53, 55 and 57 are directed to the lubricating oil of Claims 17, 20, 27 and 30 wherein said lubricating oil is a natural gas engine lubricating oil. Support for the addition of the natural gas engine lubricating oil is found on page 4, lines 7 – 8.

Claims 59 - 63 are directed to the lubricating oil of Claims 7, 27, 30, 44 and 46 wherein said lubricating oil has a total ash content of from 0.15 to 0.6 wt %. Support for the addition of the ash content limitation is found on page 19, in Table 2.

No new matter has been added.

Objection to Claim 6

Claim 6 has been objected to as being dependent upon a rejected base claim. Claim 6 has been rewritten in independent form including all of the limitations of

the base claim. It is respectfully submitted that, as amended, Claim 6 is in condition for allowance.

35 U.S.C. 112 Rejection of Claims 2 – 5, 8 – 10 and 13 - 16

Claims 2, 3 and 5 have been amended to define "BHT" as butylated hydroxy toluene. As amended, the abbreviation has been written out to distinctly claim the subject matter encompassed by the instant invention thus rendering said Claims definite. Support for the amendment is found at page 7, lines 9 - 10.

Claims 2, 4 and 6 have been amended to better define the variable "R", the ester component (i.e., a C₇-C₉ alkyl group) of the propionate. Page 7, lines 1 to 8 of the specification disclose the name used in trade for the disclosed formula. Said trade name is disclosed as IRGANOX L135® and Naugard® PS-48. Section 608.01(v) of the Manual of Patent Examining Procedure states the following with respect to the use of trade names in patent applications:

Names used in trade are permissible in patent applications if:

. . . (B) In this country, their meanings are well-known and satisfactorily defined in the literature.

Condition . . . (B) must be met at the time of filing of the complete application.

At the time of filing the present application, IRGANOX L135® and Naugard® PS-48 were well known and described in a Ciba® safety data sheet and a Crompton Corporation product information sheet, respectively, for each of the

trade names. Both sheets disclose that the variable "R" group is comprised of a C₇-C₉ alkyl group. Each of these documents was submitted in a Supplemental Information Disclosure Statement (IDS) submitted March 18, 2002. The specification has been amended to reflect that the "R" group is a C₇-C₉ alkyl group. Accordingly, this description of the variable "R" renders the claims definite with respect to Claim 4, and defines the ester component (i.e., a C₇-C₉ alkyl group) of the propionate, thereby rendering Claims 2 and 6 definite.

Claims 8 – 10 and 13 – 16 depend from Claims 2 – 6. Claims 2 – 6, as amended, particularly point out and distinctly claim the subject matter encompassed by the instant invention. As such, Claims 8 – 10 and 13 – 16, as amended, are definite.


35 U.S.C. Rejection of Claims 1, 7, 11, and 25 over Little, Jr. et al., U.S. Patent No. 3,189,545

Examiner rejected Claims 1, 7, 11, and 25 over Little, Jr. et al., U.S. Patent No. 3,189,545. Claims 1 and 25 have been cancelled. Original Claim 7 had depended from Claim 1. Examiner rejected Claim 1 as obvious over Little, Jr. et al. Claim 7, as amended, now depends from Claim 2. Claim 2 has been amended to overcome the rejection under 35 U. S. C. 112, set forth in the Office action. Claim 7 depends from the amended claim and thereby incorporates the limitations of the independent claim. Furthermore, Claim 11 depends from Claim 7 and, as such, Claim 11 also incorporates the limitations of Claim 2 and Claim 7.

For these reasons stated, Applicants submit that this application is in condition for allowance and request that the Examiner reconsider this rejection and allow Claims 2 – 11, 13 – 22 and 27 - 58 of this application.

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Respectfully submitted,



Martin C. Fallon
Attorney for Applicants
Reg. No. 47,554
(925) 842-1557

MCFallon:mcf

Enclosures:
Fee Transmittal
Request for Extension of Time
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